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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/719,613
Filing Date: November 21, 2003
Appellant(s): ENGLISH ET AL.

**MAILED
DEC 28 2007
GROUP 3700**

Richard L. Bridge
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 23 July 2007 appealing from the Office action mailed 12 January 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed. It is noted that the final rejection from which this appeal is taken is dated 12 January 2007, not 13 December 2007 as indicated by applicant's brief.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of appealed claims 1, 3, 4, 6-16, 18-25, 28-41 and 44-63 appears on page 21-33 of the Appendix to the appellant's brief. The minor errors are as follows:

Claim 5, listed on page 22 of the Appendix to the applicant's brief is incorrectly numbered. It is renumbered claim --6--.

(8) Evidence Relied Upon

US 2003/0191442	Bewick-Sonntag <i>et al.</i>	10-2003
US 3,856,013	Dulle	12-1974
US 5,536,555	Zelazoski <i>et al.</i>	7-1996
Re. 32,649	Brandt <i>et al.</i>	4-1988
US 5,836,929	Bewick-Sonntag <i>et al.</i>	11-1998

(9) Grounds of Rejection

Claim Rejections – 35 USC § 103

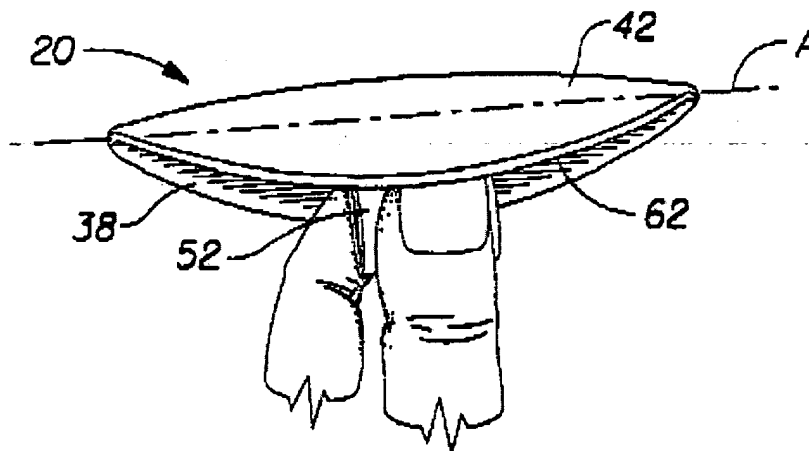
The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

Claims 24, 25, 28-33, 36-41, 44-48, 51-55 and 60-63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bewick-Sonntag *et al.* (US 2003/0191442 A1) in view of Dulle (US 3,856,013), Zelazoski *et al.* (US 5,536,555 A; hereinafter "Zelazoski") and Brandt *et al.* (US Re. 32,649, hereinafter "Brandt").

Bewick-Sonntag *et al.* disclose the claimed invention except for the specifically claimed performance test vectors (saturation capacity, retention capacity, intake time, gel stiffness index, rewet) and various physical parameters including percent by weight of superabsorbent, article length and width, absorbent structure basis weight, absorbent structure density and thickness (see figure 4, below)(paragraphs 0110-0115, 0309 and 0310). While parameters such as length, density and thickness are structural limitations, the claimed test parameters are functional, not structural limitations. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). MPEP § 2114.



Generally, optimization of ranges of test characteristics or parameters such as size, temperature, concentration or density will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such test characteristics or parameters are critical. “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

Regarding claims 24, 25, 30, 39-41, 54 and 55, the benefits of optimizing saturation capacity is taught by Dulle, which teaches that maximizing saturation capacity of an absorbent article aids in preventing the article from exceeding that capacity, beyond which it can not absorb more fluid (col. 2, lines 37-59). The benefits of optimizing retention capacity is taught by Brandt, which teaches that maximizing the total fluid capacity of an absorbent article is desirable (col. 1, lines 38-55). The benefits of optimizing intake and rewet time is taught by Zelazoski, which teaches that minimizing the amount of time for a material to uptake fluids and to minimize any rewetting is desirable (col. 19, lines 1-43). These secondary references show that was known to be desirable to optimize these parameters, making the claimed values result-effective variables. One of ordinary skill in the art would have recognized that increasing capacity and/or retention, intake time and rewet performance would allow the absorbent article to larger fluid insults or fluid insults of longer duration and avoidance of rewet when the article is in use.

Further regarding claim 24, the benefits of optimizing the amount of superabsorbent, the structure's basis weight and density would have been known to one of ordinary skill in the art prior to the instant invention. Increasing the amount of superabsorbent, and the article's density provides for increased absorbent capacity, while decreasing these values increases the rate at which liquid can be absorbed.

Further regarding claim 41, Bewick-Sonntag teaches a range of superabsorbent material in a range of weight percent that overlaps that of the instant invention (paragraph 0114). In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Regarding claims 37, 38, 52 and 53, Brandt teaches that the benefits of optimizing the gel stiffness or resistance of the article to deformation while under load would have been known to one of ordinary skill in the art prior to applying the gel stiffness index test (col. 1, lines 38-55). One of ordinary skill in the art would have recognized the increasing the article's resistance to deformation underload would result in less leakage after a fluid insult while an absorbent article is being worn.

Regarding claims 26-29, 31 and 44-46, the benefits of optimizing the weight % of superabsorbent, the density and/or basis weight of the absorbent structure, the length and thickness of the absorbent structure would have been known to one of ordinary skill in the art. This is because human females upon which such absorbent articles are placed very considerably in size and weight and have variable flow conditions, all of which will require optimization in terms of the size of the absorbent article and the amount of absorbent material that must be

packed into that article. Other factors that would come into play would be overall article flexibility and materials cost.

Regarding claims 32 and 47, Bewick-Sonntag *et al.* teach an absorbent article (20) comprising a permeable topsheet (42) and an impermeable backsheet (38) enveloping an absorbent core (44)(figure 4).

Regarding claims 36 and 51, Bewick-Sonntag *et al.* teach an absorbent structure that is of unitary construction (one piece).

Regarding claims 33 and 48, Bewick-Sonntag *et al.* teach an absorbent article (20) having a predetermined axis of flexure (X)(see figure 4, *supra*).

Claims 1, 3, 4, 6-16, 18-23, 34, 35, 49, 50 and 56-59 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bewick-Sonntag *et al.*, Dulle, Brandt and Zelazoski as applied to claims 24, 25, 28-33, 36-41, 44-48, 51-55 and 60-63 above, and further in view of Bewick-Sonntag *et al.* (US 5,836,929 A; hereinafter '929).

Bewick-Sonntag *et al.*, Dulle, Brandt and Zelazoski do not expressly disclose an absorbent structure comprising a homogeneous mixture of hydrophilic fibers and superabsorbent.

'929 teaches an absorbent article having an absorbent core made from a blend of hydrophilic fibers and superabsorbent (claim 10). This provides favorable loft and absorption characteristics.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use '929's absorbent core construction in the labial pad of Bewick-Sonntag *et al.*, Dulle, Brandt and Zelazoski in order to provide good absorptive ability.

Regarding claims 1-3, Bewick-Sonntag teaches a range of superabsorbent material in a range of weight percent that overlaps that of the instant invention (paragraph 0114). In the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Regarding claims 1, 7, 22 and 23, the benefits of optimizing saturation capacity and/or retention capacity, intake time and rewet would have been known prior to applying a test, making these values result-effective variables. One of ordinary skill in the art would have recognized that increasing capacity and/or retention, intake time and rewet performance would allow the absorbent article to larger fluid insults or fluid insults of longer duration and avoidance of rewet when the article is in use. See the detailed discussion of the rejection under Bewick-Sonntag *et al.*, Dulle, Brandt and Zelazoski, *supra*.

Regarding claims 1 and 17, Bewick-Sonntag *et al.* teach an absorbent article (20) comprising a permeable topsheet (42) and an impermeable backsheet (38) enveloping a separate absorbent core (44)(figure 2, *infra*).

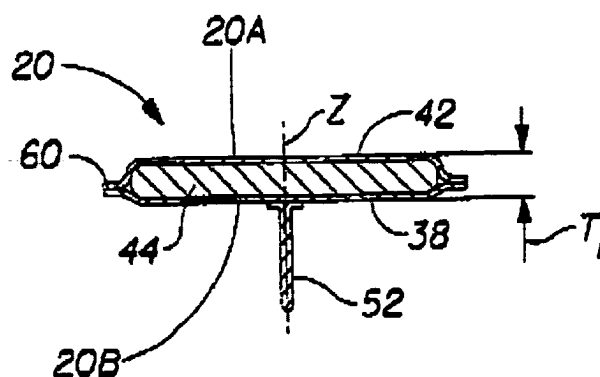


Fig. 2

Regarding claims 1 and 6, the benefits of optimizing the gel stiffness or resistance of the article to deformation while under load would have been known to one of ordinary skill in the art prior to applying the gel stiffness index test. One of ordinary skill in the art would have recognized the increasing the article's resistance to deformation under load would result in less leakage after a fluid insult while an absorbent article is being worn. See the detailed discussion of the rejection under Bewick-Sonntag *et al.*, Dulle, Brandt and Zelazoski, *supra*.

Regarding claims 1, 3, 4, 8-16 and 18, the benefits of optimizing the weight % of superabsorbent, the density and/or basis weight of the absorbent structure, the length and thickness of the absorbent structure would have been known to one of ordinary skill in the art. This is because human females upon which such absorbent articles are placed very considerably in size and weight and have variable flow conditions, all of which will require optimization in terms of the size of the absorbent article and the amount of absorbent material that must be packed into that article. Other factors that would come into play would be overall article flexibility and materials cost.

Regarding claim 21, Bewick-Sonntag *et al.* teach an absorbent structure that is of unitary construction (one piece).

(10) Response to Argument

Applicants assert that Bewick-Sonntag *et al.* teach using a greater superabsorbent concentration that would be greater than that which is claimed. This argument is not persuasive because looking at the references as a whole, one of ordinary skill in the art would see the benefit of maximizing capacity within obvious constraints such as the size, thickness, weight, flexibility

as well as competing performance vectors. These concerns are directly related to how comfortable and practical the article is during use. Maximizing the performance capacity within such constraints is optimization of the capacity.

Applicants assert that it also would not have been obvious to one skilled in the art to modify the absorbent core of Bewick-Sonntag *et al.* to have the recited saturation capacity and the recited retention capacity. Applicants also assert that Dulle does not suggest that saturation capacity should be maximized. This argument is not persuasive because Dulle teaches that exceeding saturation capacity is undesirable because every drop of liquid added to an absorbent article beyond that point requires a drop to leave the absorbent article (col. 2, lines 25-60; col. 3, lines 9 & 10). This at least implies one of two solutions to avoid exceeding saturation capacity, increasing the saturation capacity or decreasing the amount of liquid that is absorbed by the article. “[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968)

Applicants also assert that Brandt does not suggest that the superabsorbent retention capacity should be maximized. This argument is not persuasive because Brandt teaches the desirability of increasing retention capacity, which at least suggests or implies the benefits of optimizing retention capacity (col. 1, lines 38-55). See *In re Preda*, *supra*.

Applicants assert that with respect to intake and rewet properties, Zelazoski only applies to body-side liners or topsheets, not absorbent structures having superabsorbent. Applicants also

assert that Zelazoski teaches the desirability of minimizing intake performance. This argument is not persuasive because Zelazoski is applied for showing the desirability of maximizing the speed of (or minimizing the time of) liquid intake and minimizing the amount of rewet (or maximizing rewet performance) in absorbent articles generally. The benefits of optimizing intake and rewet time is taught by Zelazoski, which teaches that minimizing the amount of time for a material to uptake fluids and to minimize any rewetting is desirable (col. 19, lines 1-43).

The secondary references show that it was known in the art at the time of the invention that it was desirable to optimize these parameters, making the claimed values result-effective variables.

One of ordinary skill in the art would have recognized that increasing capacity and/or retention, intake time and rewet performance would allow the absorbent article to larger fluid insults or fluid insults of longer duration and avoidance of rewet when the article is in use.

Applicants assert that the claimed absorbent article is not constructed to maximize each of the performance test vectors. Again, this argument is not persuasive because looking at the references as a whole, one of ordinary skill in the art would see the benefit of maximizing capacity within obvious constraints such as the size, thickness, weight, flexibility as well as competing performance vectors.

Applicants assert that Bewick-Sonntag *et al.* fail to disclose an intake time as claimed. This argument is not persuasive because the benefits of optimizing intake and rewet time is taught by Zelazoski, which teaches that minimizing the amount of time for a material to uptake fluids and to minimize any rewetting is desirable (col. 19, lines 1-43). Again, the secondary

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references show that was known to be desirable to optimize these parameters, making the claimed values result-effective variables.

(11) Related Proceedings

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

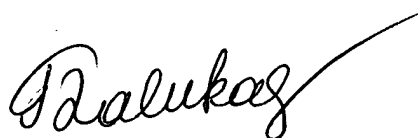
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